

What is claimed is:

1. A device for switching between a plurality of video inputs and a plurality of video outputs, the device comprising:

an interface device coupled to a data bus; and

5 a switch coupled to the interface device and a plurality of video inputs and outputs,

wherein the video switching signal is received by the interface device over the data bus, the interface device generates a video switch instruction based on the received video switching signal and sends the generated video switch instruction to the switch, and the switch connects one or more of the video inputs to one or more of the video outputs according to the video switch instruction,

10 wherein the plurality of video inputs and outputs includes 16 video inputs and 16 video outputs.

15 2. The device of Claim 1, wherein the switch is coupled to one or more helmet display devices.

3. The device of Claim 1, wherein at least a portion of the switch is constructed according to a PMC formfactor.

4. The device of Claim 3, wherein the device is implemented on a single circuit board.

20 5. The device of Claim 4, wherein the interface device is adaptable to connect to a PCI data bus.

6. The device of Claim 5, wherein the circuit board is coupled to the PCI data bus within a video box.

25 7. A method for switching between a plurality of video inputs and a plurality of video outputs, the method comprising:



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receiving a video switching signal at an interface device of a switch device;
generating a video instruction at the interface device based on the received video
switching signal;
sending the generated video instruction to a switch; and
5 connecting one or more of the video inputs to one or more of the video outputs
according to the video switch instruction,
wherein the plurality of video inputs and outputs includes 16 video inputs and 16
video outputs.

8. The method of Claim 7, wherein the video outputs include one or more helmet
10 display devices.

9. The method of Claim 7, wherein receiving the video switching signal includes
receiving the video switching signal from a PCI data bus.

10. A video system comprising:
a video box comprising:
15 a video controller; and
a video switch;
one or more user interfaces coupled to the video controller;
a plurality of video inputs coupled to the video switch; and
a plurality of video outputs coupled to the video switch,
20 wherein activation of the user interface generates a video control signal and sends
the generated video control signal to the video controller, the video controller
generates a video switching signal based on the received video control signal,
and the video switch connects one or more of the plurality of video inputs to
one or more of the plurality of video outputs based on the generated video
25 control signal.

11. The system of Claim 10, wherein the plurality of video inputs include 16 video
inputs and the plurality of video outputs include 16 video outputs.

12. The system of Claim 10, wherein one or more of the plurality of video outputs include a helmet display device.

13. The system of Claim 10, wherein the video box includes a data bus for delivering the video switching signal.

5 14. The system of Claim 13, wherein the data bus is a PCI bus.

15. The system of Claim 14, wherein the video switch is coupled to the PCI bus.

16. The system of Claim 15, wherein the video switch is implemented on a single circuit board according to a PMC formfactor.

10 17. The system of Claim 13, wherein the video switch includes:
an interface device coupled to the data bus; and
a switch coupled to the interface device and the plurality of video inputs and outputs,
wherein the video switching signal is received by the interface device over the data bus, the interface device generates a video switch instruction based on the received video switching signal and sends the generated video switch instruction to the switch, and the switch connects one or more of the video inputs to one or more of the video outputs according to the video switch instruction.

15 18. A method comprising:
20 generating a video control signal at a user interface;
sending the generated video control signal to a video controller;
generating a video switching signal based on the received video control signal the video controller;
sending the generated video switching signal to a video switch; and



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connecting one or more of a plurality of video inputs to one or more of a plurality of video outputs at the video switch based on the generated video switching signal.

19. The method of Claim 18, wherein the plurality of video inputs includes 16 video inputs and the plurality of video outputs include 16 video outputs.

20. The method of Claim 18, wherein connecting includes connecting to one or more helmet display devices.

21. The method of Claim 18, wherein sending the generated video switching signal to a video switch includes sending the generated video switching signal over a data bus.

22. The method of Claim 21, wherein the data bus is a PCI bus.

23. The method of Claim 22, further comprising implementing the video switch on a single circuit board according to a PMC formfactor.

24. The method of Claim 18, wherein connecting one or more of a plurality of video inputs to one or more of a plurality of video outputs at the video switch based on the generated video switching signal includes:

receiving the video switching signal at an interface device of a switch device;

generating a video switch instruction at the interface device based on the received video switching signal;

sending the generated video switch instruction to the switch device; and

connecting one or more of the video inputs to one or more of the video outputs at the switch device according to the video switch instruction.



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